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U. S. DEPARTMENT OF AGRICULTURE
BELTSVILLE BRANCH

Milking Plant
HERRINGBONE TYPE

COOPERATIVE FARM BUILDING
PLAN NO. 5868
(3-SHEETS)
PLAN EXCHANGE

In a milking room with the herringbone-type arrangement, one man can milk 40 to 50 cows per hour, and he travels only about 50 feet per cow per milking. Time and travel studies of work operations in milking rooms show that this is substantially less time and travel per cow than with other arrangements.

The working drawings show double 4, double 6, and double 8 sizes for one and two operators of pipeline milkers delivering to a bulk tank. Cows enter the milking room at floor level, and the operator's pit is below grade. This eliminates the need for cow entrance and exit ramps.

This plant is adapted to herds of 40 cows or more. It may be used in connection with a loose housing system or a converted stall barn. Housing and feeding facilities are not shown in this design.

A more complete plan showing unit masonry construction may be obtained through your county agent or from the Extension agricultural engineer at most State agricultural colleges. There is usually a small charge.

ORDER PLAN NO. 5868, MILKING PLANT—HERRINGBONE TYPE

If working drawings of this plan are not available in your State, write to the U.S. Department of Agriculture, Agricultural Engineering Research Division, Plant Industry Station, Beltsville, Md. The U.S. Department of Agriculture does not distribute drawings, but will direct you to a State that does distribute them.

April 1960

UNITED STATES DEPARTMENT OF AGRICULTURE Miscellaneous Publication No. 818

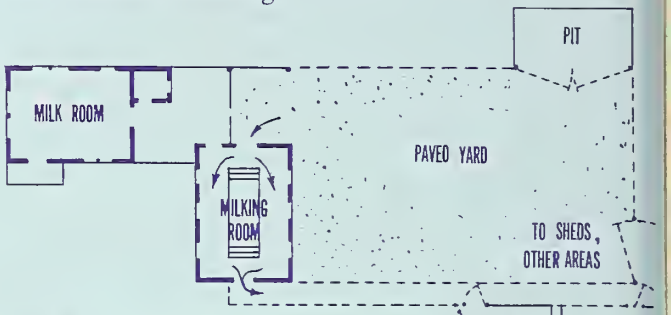
The milking room is shown without provision for concentrate feeding but an alternate feed trough with dividers is included on the plan to be used if the operator prefers to feed the cows in the milking room. However, cows stand more quietly while being milked, and the room is easier to clean if they are not fed while being milked.

The stall equipment shown is not manufactured by any barn equipment manufacturer in the U.S. That shown has a single rump rail formed in herringbone bends, which has proved adequate in Scotland but has not been used in the U.S. Suspension of the stalls from the ceiling leaves the work space free of columns. If commercial stall and feeding equipment is to be installed, be sure to check all of the dimensions of the proposed equipment and make the necessary dimensional changes to accommodate the stalls and equipment to be used.

The drainage shown on the working drawings consists of only three drains. Before using this drainage system consult local health authorities to be sure that the plan conforms to local regulations. A continuous grating behind the cows may be preferred. The layouts giving relationship of the milk room and milking room to holding areas, catch stalls, and manure pit are also matters to be discussed with local health authorities.

Interior finish should provide a smooth, easily cleaned surface, preferably in a white or pastel color.

The catch stall unit shown in the layout is described in Miscellaneous Publication No. 786, Dairy Stalls for Artificial Breeding.



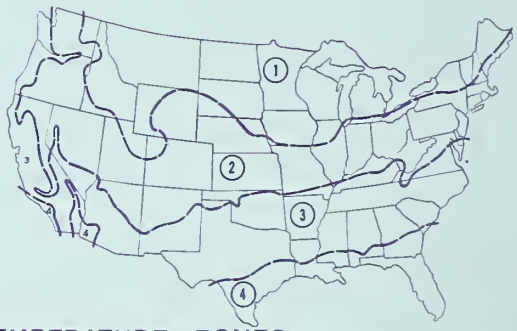
DAIRY LAYOUT

INSULATION

SUGGESTED INSULATING (U) VALUES

ZONE	U-VALUES—Btu/hr., ft.^{2},°F	
	Walls	Ceiling
1	0.20	0.06
2	0.25	0.08
3	0.41	0.12
4	0.56	0.50

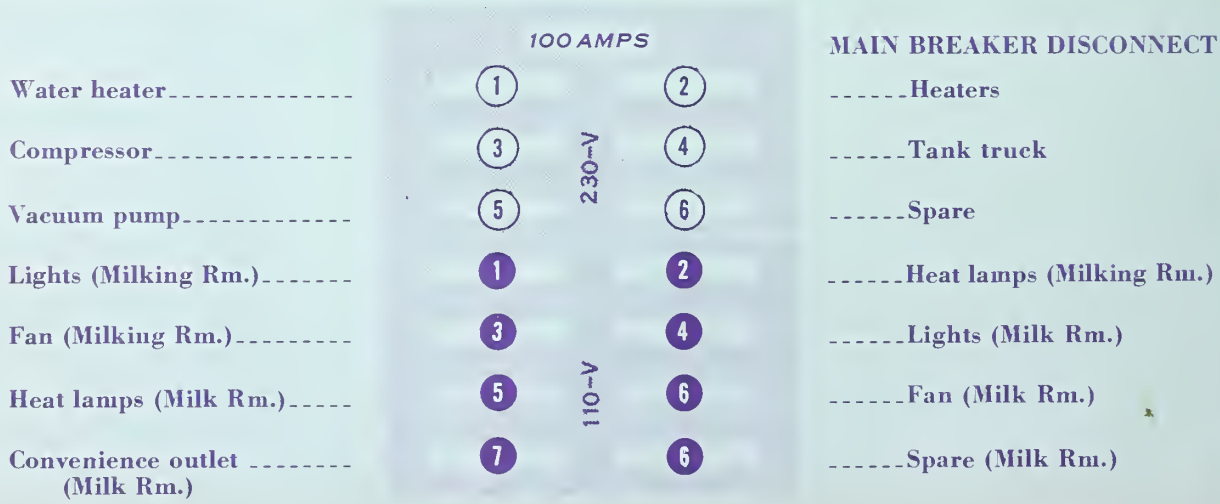
See material dealer for information on wall and ceiling construction which provide these values.
Provide vapor barrier on warm side of walls and ceiling to protect insulation from moisture.



TEMPERATURE ZONES

ELECTRICAL

SUGGESTED CIRCUIT BREAKER PANEL



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